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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,820	01/05/2004	Yasutoshi Inoue	SON-2897	1638

23353 7590 10/12/2005

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WASHINGTON, DC 20036

EXAMINER

FIGUEROA, NATALIA

ART UNIT	PAPER NUMBER
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2651

DATE MAILED: 10/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/750,820

Applicant(s)

INOUE ET AL.

Examiner

Natalia Figueroa

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/09/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 09 September 2004 (09/09/2004) is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fasen et al (USPN 6,031,673), hereinafter Fasen in view of Watanabe et al (USPN 6,014,291), hereinafter Watanabe.

RE claim 5, Fasen discloses a recording and reproduction system for performing azimuth recording on a tape form recording medium by a plurality of recording head, said system

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comprising a head system having a plurality of said recording heads (abstract, fig. 6, and col. 4, lines 54-59), and a tape feeding means for feeding said tape form recording medium (fig. 6, col. 4, lines 60-62), wherein said head system comprises a first recording head including a plurality of magnetic gaps having a first azimuth angle (col. 5, lines 26-29 and lines 32-41), and a second recording head including a plurality of magnetic gaps having a second azimuth angle different from said first azimuth angle (col. 5, lines 26-29 and lines 32-45).

Fasen fails to explicitly teach that a positional relationship between said magnetic gaps is so determined that in relation to each magnetization pattern formed on said tape form recording medium by said magnetic gaps of said first recording head, side edge portions in the formation direction of said patterns are overwritten by said magnetic gaps of said second recording head. However, Watanabe discloses such on (col. 1, lines 43-54 and col. 2, lines 56-59). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus as disclosed by Fasen with the above teachings from Watanabe hence controlling the amount of overlapping to therefore minimize and avoid errors.

RE claim 6, the combination of Fasen and Watanabe is relied upon for the same reasons of rejection as stated above. Watanabe further discloses that said overwriting is conducted with such a positional relationship that a side edge portion of said magnetization pattern in the formation direction of said magnetization pattern formed by each said magnetic gap of said first recording head coincides substantially with the center of each magnetization pattern formed by said second recording head (fig. 42, and disclosure thereof and col. 1, lines 43-54 and col. 2, lines 56-59).

RE claim 7, the combination of Fasen and Watanabe is relied upon for the same reasons of rejection as stated above. Watanabe further discloses that said first and second recording heads are thin-film heads, and a single head chip constituting each said recording head is provided with a plurality of magnetic gaps (abstract and col. 12, line 64-col. 13, line 13).

RE claim 8, the combination of Fasen and Watanabe is relied upon for the same reasons of rejection as stated above. Fasen further discloses that said first and second recording heads are mounted on a rotary drum (fig. 6 and disclosure thereof), and each of said magnetization patterns formed on said recording medium is an inclined track (fig. 7 and disclosure thereof col. 5, lines 22-23).

RE claims 1-4, the combination of Fasen and Watanabe is relied upon for the same reasons of rejection as stated in the above rejections of claims 5-8. Claims 5-8 have limitations similar to those treated in the above rejection(s), and are met by the references as discussed above.

RE claims 9-11, the combination of Fasen and Watanabe is relied upon for the same reasons of rejection as stated in the above rejections of claims 5-6 and 8. Method claims 9-11 are drawn to the method of using the corresponding apparatus claimed in claims 5-6 and 8. Therefore method claims 9-11 correspond to apparatus claims 5-6 and 8 and are rejected for the same reasons of obviousness as used above.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following documents are cited to further show the state of the art with respect to magnetic recording and reproduction systems.

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a) Kubota et al (USPN 5,745,318): Discloses a magnetic recording medium with multiple magnetic heads.

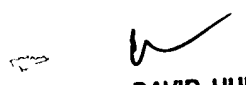
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalia Figueroa whose telephone number is (571) 272-7554.

The examiner can normally be reached on Monday - Thursday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


NFM


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SUPERVISORY PATENT EXAMINER
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